

CLAIMS

What is claimed is:

1. A process for encapsulating a food particle with a liquid encapsulating material, the process comprising the steps of:

- 5           (a) metering a liquid encapsulating material into a flow restrictor;
- (b) injecting a gas stream through the flow restrictor concurrently with step (a) to (i) atomize the liquid encapsulating material and (ii) create turbulent flow of the
- 10           gas stream and the atomized liquid encapsulating material, wherein the gas stream is optionally heated; and
- (c) adding a food particle to the region of turbulent flow concurrently with steps (a) and (b), wherein the food particle mixes with the atomized liquid encapsulating
- 15           material to provide an encapsulated food particle.

2. The process of claim 1, wherein the food particle is selected from the group consisting of coffee grounds, flavoring agents, food ingredients, powdered dairy products, powdered soup products, powdered snack foods, powdered drink mixes, powdered health and fitness

20           supplements, baking goods, and inert food additives.

3. The process of claim 1, wherein the food particle added in step (c) comprises a GRAS nonfood core particle that has been loaded or coated with a food or flavoring material.

4. The process of claim 1, wherein the food particle added in step

25           (c) comprises a food particle that has been loaded or coated with a food or flavoring material.

5. The process of claim 1, wherein the food particle added at step (c) comprises a food particle that has been loaded or coated with a nonfood GRAS material.

30           6. The process of claim 1, wherein the food particle added at step (c) comprises a spray-dried emulsion of a flavor oil.

7. The process of claim 1, wherein the food particle added at step (c) comprises an extruded emulsion of a flavor oil.

8. The process of claim 1, wherein the liquid encapsulating

35           material comprises a sweetening agent, a food flavoring agent or enhancer, a food color, a food aroma agent, an anti-caking agent, a humectant, an antimicrobial agent, an antioxidant, a surface modifying agent, a moisture barrier, a shelf-life extending agent, a flavor retaining

agent, a nutritional supplementing agent, a carbohydrate, a protein, a lipid, or a mineral.

9. The process of claim 1, further comprising repeating steps (a)-  
(c) at least once wherein the liquid encapsulating material is the same or  
5 different.

10. An encapsulated food particle made by the process of any of  
claims 1-9.